Royal Darwin Hospital Trauma Service

An innovative approach to Trauma Care in the NT

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Trauma Coordinator
Royal Darwin Hospital

www.ncctrc.com.au
Tyranny of Distance

Darwin:
- Dili 718 km (1hr)
- Denpasar 1759 km (2hrs)
- Jakarta 2736 km (3.5 hrs)
- Adelaide 2609 km (3.5 hrs)
- Perth 2651 km (3.5 hrs)
- Brisbane 2846 km (3.5 hrs)
- Sydney 3146 km (4 hrs)
- Melbourne 3140 km (4 hrs)
- Singapore 3345 km (4.2 hrs)
National Critical Care & Trauma Response Centre

The Howard Government Election 2004 Policy

Royal Darwin Hospital
Equipped, Prepared and Ready

Liberal

The Nationals
• Joint Commonwealth & NT Government initiative
• Centre for excellence Trauma & Disaster Response
• Royal Darwin Hospital “forward receiving” hospital
• AusMAT coordination activated by AHPC
• Strategic alliances key stakeholders
Royal Darwin Hospital

- 350-bed major Tertiary referral hospital for the Northern Territory, remote north Western Australia and South-East Asian region
  - 60,000+ presentations to ED per year
  - 35% admission rate

- 220 000 population
- 1.5 million tourists yearly
Trauma in the Top End

- NT has the leading death rate nationally from External causes
  - Transport related deaths are 3 times national average
  - Falls and Assaults also amongst the highest
- Aboriginal & Torres Strait Islander people 31% population
  - two thirds live outside of major urban centres
  - 3 times more likely to be hospitalised

NATIONAL CRITICAL CARE AND TRAUMA RESPONSE CENTRE
Vision & Implementation 2008

- Trauma Coordinator role introduced
- Introduction of processes & systems to support staff at RDH in the delivery of best practice Trauma care
  - Holistic and Evidence-based case management
  - Shared Clinical governance model
  - Spectrum of Trauma Care
    - Prevention
    - Rural & remote Clinics
    - Pre-hospital (SJA and Aeromedical retrieval service)
    - ED
    - ICU
    - Wards
    - Rehabilitation
Model of Care 2009

- Clinical Nurse Consultant care team
  - extended 12hrs / 7 day cover
  - Holistic case management coordination approach
  - Follows patient journey across phases of care
  - Evidence based, best-practice standards of care
ED Presentation Times by Day

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<th>Mon</th>
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RDH Trauma Service 2010 - 11

- Director of Trauma
- Trauma Coordinator
- Orthopaedic Trauma Surgeon
- Trauma Fellow
- Trauma CNC (4)
- Trauma Research & Registry
- Occupational Therapist
- Social Worker

- Consultant specialist service
- Coordination & liaison
- Clinical Pathways
- Education
- Quality monitoring & Systems Improvement
Initiatives

- Case management & coordination
- External links
- Tertiary Surveys
- Trauma Grand Round
- Trauma Management Committee
- Mortality & Morbidity
- PACS imaging

- Trauma registry & Clinical Indicators
- Clinical IT System reporting
- Trauma Nursing Program
- Mild Head Injury (mTBI) clinic
- PTA Screening protocol
- Spinal injury pathways
- Massive Transfusion protocol
Improvements

• Continuity of care
• Trauma Call Criteria
• Interstate Transfers
• Education
• Specialist clinical nursing support
• Patient advocacy & family meetings
• Improved equipment
Education

• Regular in-service session
  – Joint Grand Round breakfasts
  – Individual areas

• Courses
  – Trauma Nursing Program
  – EMST & EMSB
  – RATE & RPHTDC
  – MIMMS
  – Trauma Team training

• Clinical placement program
  – ADF
  – Balinese Hospital (Sanglah)

• Injury Prevention
  – Australian Defence Force
  – Riders NT
  – Liaison with Coroners, Police, NT Road Safety & Media

• RDH Specialist CNCs
  – Burns
  – Wound
  – Acute Pain
  – Rehab
Disaster response

• Integrated Trauma Service response plan
  - 24 hour surge capacity coverage
  - Trauma CNC in each key clinical area
  - Designated positions in Hospital field & AusMAT teams
  - Major events medical support
RDH Trauma Registry

Inclusion criteria:

- RDH admission
- Trauma Call or Alert
- ICU or HDU
- Died in hospital
- ISS >9
2010 snapshot

• 660 patients
  – 78 Intensive Care
  – 57 High Dependency
  – 526 Ward
  – 23 Deaths
  – 18 Transfers interstate

• 280 pts ISS >9
  – 82% Blunt
  – 13% Penetrating
  – 5% Burn
Seasonal activity

Admissions by Month

Jan  Feb  Mar  Apr  May  Jun  Jul  Aug  Sept  Oct  Nov  Dec
Mechanism

Type of Injury

- Blunt: 79%
- Penetrating: 13%
- Burns: 5%
- Immersion Suffocation: 2%
- Other: 1%
Ethnicity Distribution 2010

- Indigenous: 34%
- Other: 66%
Injury Severity

ISS by Month

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